WHAT IS CLAIMED:

1   1.   A method for managing product development, the method

2   comprising:

3   storing technical requirements data for a product including product data,

4   material data, and packaging data in a structured relational database;

5   linking unstructured documents to the technical requirements data

6   within the structured relational database;

7   grouping technical requirements data into technical requirements

8   summaries to define a finished product;

9   linking the technical requirements summaries for the finished product

10   to facilitate user navigation and searchability among related technical requirements

11   summaries;

12   recording changes made to the technical requirements data and

13   associated user identification information;

14   storing approval information for the technical requirements data in the

15   relational database; and

16   electronically communicating approved technical requirements data for

17   use in manufacturing and distributing the finished product.

1   2.   The method of claim 1 wherein the step of storing approval

2   information comprises storing an electronic signature which uniquely identifies a user.

1   3.   The method of claim 1 wherein the step of linking unstructured

2   documents comprises associating structured attributes with the unstructured documents

3   and storing the associated structured attributes in the relational database.

1   4.   The method of claim 1 further comprising:

2   validating the technical requirements data during entry relative to

3   previously entered technical requirements data based on predetermined rules.

1   5.   The method of claim 1 wherein the technical requirements

2   summaries include at least two levels of summaries, the method further comprising:

3   storing separate approval information for each level of technical

4   requirements summaries.

1   6.   The method of claim 5 wherein the levels of summaries include

2   at least a master level approved by a first user and an individual level approved by the

3   same user or by a different user.

1   7.   The method of claim 5 wherein the levels of summaries include

2   at least a master level and a plurality of individual level summaries associated with at

3   least one master level summary.

1   8.   The method of claim 1 wherein the technical requirements

2   summaries include a formula card, a raw material specification, a packing standard,

3   a packaging material specification, a supplier approval, and an approved country

4   matrix.

1   9.   The method of claim 1 further comprising:

2   limiting access to subsets of technical requirements data based on a user

3   identification and password.

1   10.   The method of claim 1 wherein the step of grouping technical

2   requirements data comprises grouping data to form different technical requirements

3   summaries based on requirements or practices of a particular geographic region.

1   11.   The method of claim 1 wherein the step of grouping technical

2   requirements data comprises combining different technical requirements data to form

3   technical requirements summaries based on requirements or practices of business units

4   within an organization.

1   12.   The method of claim 1 wherein the step of storing technical

2   requirements data comprises storing draft versions of the technical requirements data.

1   13.   The method of claim 1 wherein the step of storing technical
2   requirements data comprises storing approved technical requirements data.

1   14.   The method of claim 1 wherein the step of storing technical
2   requirements data comprises storing archived technical requirements data.

1   15.   The method of claim 1 wherein the step of storing technical
2   requirements data comprises:
3   storing draft, approved, and archived versions of the technical
4   requirements data; and
5   linking the draft, approved, and archived versions of the technical
6   requirements within the relational database.

1   16.   The method of claim 1 wherein the step of grouping technical
2   requirements data into technical requirements summaries comprises grouping product
3   components, product amounts, in-process product measures, and finished product
4   measures into a formula card.

1   17.   The method of claim 1 wherein the step of grouping technical
2   requirements data into technical requirements summaries comprises grouping package
3   components, package amounts, in-process package measures, and finished package
4   measures into a packing standard.

1   18.   The method of claim 17 wherein the packing standard comprises
2   consumer level data, customer level data, and transport level data.

1   19.   The method of claim 18 wherein the consumer level data
2   comprises primary package data and a product formula.

1   20.   The method of claim 18 wherein a single business group
2   develops the consumer level data, the customer level data, and the transport level data.

1   21.   The method of claim 18 further comprising creating and
2   approving each level of data within a different business group.

1   22.   The method of claim 1 wherein the step of grouping technical
2   requirements data into technical requirements summaries comprises grouping product
3   constituents and associated levels for a given raw and packaging material into a raw
4   and packaging material specification.

1   23.   The method of claim 22 further comprising:
2   separating the raw and packaging material specification into a master
3   level and an individual level, the master level including technical information and the
4   individual level containing logistical and shipping information.

1   24.   The method of claim 1 wherein the step of grouping technical
2   requirements data into technical requirements summaries comprises grouping
3   packaging constituents and associated levels for a given packaging material into a
4   packaging material specification.

1   25.   The method of claim 24 further comprising:
2   separating the packaging material specification into a master level
3   containing technical information and an individual level containing logistical and
4   shipping information.

1   26.   The method of claim 1 wherein the step of grouping technical
2   requirements data into technical requirements summaries comprises grouping raw
3   material data by approved supplier.

1   27.   The method of claim 1 wherein the step of grouping technical
2   requirements data into technical requirements summaries comprises grouping finished
3   products by approved country of sale.

1   28.   The method of claim 1 wherein the step of linking unstructured
2   documents comprises linking text documents to the technical requirements data.

1   29.   The method of claim 28 wherein the text documents specify test

2 methods, process standards, general standards, standard operating procedures, or

3 recommended procedures.

1   30.   The method of claim 1 wherein the step of linking unstructured

2 documents comprises linking artwork for product packaging to the technical

3 requirements data.

1   31.   A system for managing product development, the system

2 comprising:

3   a technical requirements data module for a product including product

4 data, material data, and packaging data in a structured relational database;

5   a module for linking unstructured documents to the technical

6 requirements data within the relational database;

7   a module for grouping technical requirements data into technical

8 requirements summaries to define a finished product;

9   a module for linking the technical requirements summaries for the

10 finished product to facilitate user navigation among related technical requirements

11 summaries;

12   a module for recording changes made to the technical requirements data

13 and associated user identification information;

14   a module for storing approval information for the technical

15 requirements data in the relational database; and

16   a module for electronically communicating approved technical

17 requirements data for use in manufacturing and distributing the finished product.

1   32.   The system of claim 31 wherein the module for storing approval

2 information stores an electronic signature which uniquely identifies a user.

1   33.   The system of claim 31 wherein the module for linking

2 unstructured documents associates structured attributes with the unstructured

3 documents and stores the associated structured attributes in the relational database.

34. The system of claim 31 wherein the technical requirements summaries include at least two levels of summaries, the system further comprising:
means for storing separate approval information for each level of technical requirements summaries.

35. The system of claim 34 wherein the levels of summaries include at least a master level approved by a first user and an individual level approved by a second user.

36. The system of claim 34 wherein the levels of summaries include at least a master level and a plurality of individual level summaries associated with at least one master level summary.

37. The system of claim 31 wherein the technical requirements summaries include a formula card, a raw material specification, a packing standard, a packaging material specification, and a supplier approval and approved country matrix.

38. The system of claim 31 further comprising:
a module for limiting access to subsets of technical requirements data based on a user identification and password.

39. The system of claim 31 wherein the module for grouping technical requirements data groups data to form different technical requirements summaries based on requirements or practices of a particular geographic region.

40. The system of claim 31 wherein the technical requirements data module includes draft versions of the technical requirements data.

41. The system of claim 32 wherein the technical requirements data module includes draft, approved, and archived versions of the technical requirements data;

4   wherein the draft, approved, and archived versions of the technical

5   requirements are linked within the relational database.

1   42.   The system of claim 31 method of claim 1 wherein the module

2   for grouping technical requirements data into technical requirements summaries

3   groups product components, product amounts, in-process product measures, and

4   finished product measures into a formula card.

1   43.   The system of claim 31 wherein the module for grouping

2   technical requirements data into technical requirements summaries groups package

3   components, package amounts, in-process product measures, and finished package

4   measures into a packing standard.

1   44.   The system of claim 43 wherein the packing standard comprises

2   consumer level data, customer level data, and transport level data.

1   45.   The system of claim 44 wherein the consumer level data

2   comprises primary package data and a link to a product formula.

1   46.   The system of claim 31 wherein the module for grouping

2   technical requirements data into technical requirements summaries groups product

3   constituents and associated levels for a given raw material into a raw material

4   specification.

1   47   The system of claim 46 wherein the module for grouping

2   technical requirements data creates a master level raw materials specification and an

3   individual level raw materials specification, the master level including technical

4   information and the individual level containing logistical and shipping information, the

5   master and individual levels being individually reviewed and approved.

1   48.   The system of claim 31 wherein the module for grouping

2   technical requirements data into technical requirements summaries groups raw and

3 packaging constituents and associated levels for a given raw and packaging material

4 into a packaging material specification.

1   49.   The system of claim 48 wherein the module for grouping

2 technical requirements creates a master level material specification containing

3 technical information and an individual level containing logistical and shipping

4 information.

1   50.   The system of claim 31 wherein the module for grouping

2 technical requirements data into technical requirements summaries groups raw material

3 data by approved supplier.

1   51.   The system of claim 31 wherein the module for grouping

2 technical requirements data into technical requirements summaries groups finished

3 products by approved country of sale.

1   52.   The system of claim 31 wherein the module for linking

2 unstructured documents links text documents to the technical requirements data by

3 reference to a stored file containing at least one text document.

1   53.   The system of claim 52 wherein the text documents specify test

2 methods, process standards, general standards, standard operating procedures, or

3 recommended procedures.

1   54.   The system of claim 31 wherein the module for linking

2 unstructured documents links artwork for product packaging to the technical

3 requirements data by reference to a stored file containing associated artwork

4 specifications or graphics.

1   55.   A computer readable storage medium having stored data

2 representing instructions executable by a computer to manage product development,

3 the computer readable storage medium comprising:

4   instructions for storing technical requirements data for a product

5   including product data, material data, and packaging data in a structured relational

6   database;

7   instructions for linking unstructured documents to the technical

8   requirements data within the structured relational database;

9   instructions for grouping technical requirements data into technical

10   requirements summaries to define a finished product;

11   instructions for linking the technical requirements summaries for the

12   finished product to facilitate user navigation among related technical requirements

13   summaries;

14   instructions for recording changes made to the technical requirements

15   data and associated user identification information;

16   instructions for storing approval information for the technical

17   requirements data in the relational database; and

18   instructions for electronically communicating approved technical

19   requirements data for use in manufacturing and distributing the finished product.

1   56.   The computer readable storage medium of claim 55 wherein the

2   instructions for storing approval information comprise instructions for storing an

3   electronic signature which uniquely identifies a user.

1   57.   The computer readable storage medium of claim 55 wherein the

2   instructions for linking unstructured documents comprise instructions for associating

3   structured attributes with the unstructured documents and storing the associated

4   structured attributes in the relational database.

1   58.   The computer readable storage medium of claim 55 further

2   comprising:

3   instructions for validating the technical requirements data during entry

4   relative to previously entered technical requirements data based on predetermined

5   rules.

1   59.   The computer readable storage medium of claim 55 wherein the

2 technical requirements summaries include at least two levels of summaries, the

3 computer readable storage medium further comprising:

4   instructions for storing separate approval information for each level of

5 technical requirements summaries.

1   60.   The computer readable storage medium of claim 59 wherein the

2 levels of summaries include at least a master level approved by a first user and an

3 individual level approved by the first user or a second user.

1   61.   The computer readable storage medium of claim 59 wherein the

2 levels of summaries include at least a master level and a plurality of individual level

3 summaries associated with at least one master level summary.

1   62.   The computer readable storage medium of claim 55 wherein the

2 technical requirements summaries include a formula card, a raw material specification,

3 a packing standard, a packaging material specification, a supplier approval, and an

4 approved country matrix.

1   63.   The computer readable storage medium of claim 55 further

2 comprising:

3   instructions for limiting access to subsets of technical requirements data

4 based on a user identification and password.

1   64.   The computer readable storage medium of claim 55 wherein the

2 instructions for grouping technical requirements data comprise instructions for

3 grouping data to form different technical requirements summaries based on

4 requirements or practices of a particular geographic region.

1   65.   The computer readable storage medium of claim 55 wherein the

2 instructions for grouping technical requirements data comprise instructions for

3 combining different technical requirements data to form technical requirements

4   summaries based on requirements or practices of business units within an
5   organization.

1   66.   The computer readable storage medium of claim 55 wherein the
2   instructions for storing technical requirements data comprise instructions for storing
3   draft versions of the technical requirements data.

1   67.   The computer readable storage medium of claim 55 wherein the
2   instructions for storing technical requirements data comprise instructions for storing
3   approval information associated with the technical requirements data.

1   68.   The computer readable storage medium of claim 55 wherein the
2   instructions for storing technical requirements data comprise:
3   instructions for storing draft, approved, and archived versions of the
4   technical requirements data; and
5   instructions for linking the draft, approved, and archived versions of
6   the technical requirements within the relational database.

1   69.   The computer readable storage medium of claim 55 wherein the
2   instructions for grouping technical requirements data into technical requirements
3   summaries comprise instructions for grouping product components, product amounts,
4   in-process product measures, and finished product measures into a formula card.

1   70.   The computer readable storage medium of claim 55 wherein the
2   instructions for grouping technical requirements data into technical requirements
3   summaries comprise instructions for grouping package components, package amounts,
4   in-process product measures, and finished package measures into a packing standard.

1   71.   The computer readable storage medium of claim 70 wherein the
2   packing standard comprises consumer level data, customer level data, and transport
3   level data.

1   72.   The computer readable storage medium of claim 55 wherein the
2   instructions for grouping technical requirements data into technical requirements
3   summaries comprise instructions for grouping product constituents and associated
4   levels for a given raw or package material into a raw or package material
5   specification, respectively.